

FEBRUARY 13, 2002

**PTAS** 

STETINA BRUNDA GARRED & BRUCKER MARK B. GARRED 75 ENTERPRISE, STE. 250 ALISO VIEJO, CA 92656

Under Secretary of Commerce For Intellectual Property and Director of the United States Patent and Trademark Office Washington, DC 20231 www.uspto.gov



UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 12/14/2001

REEL/FRAME: 012386/0039

NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

ROETERS, GLEN E.

DOC DATE: 12/12/2001

ASSIGNEE:

DPAC TECHNOLOGIES CORP. 7321 LINCOLN WAY GARDEN GROVE, CALIFORNIA 92841

SERIAL NUMBER: 10016939 PATENT NUMBER:

FILING DATE: 12/14/2001

ISSUE DATE:

MARCUS KIRK, EXAMINER ASSIGNMENT DIVISION OFFICE OF PUBLIC RECORDS mes 15-14-01

12-27-2001



Form PTO-1595 U.S. DEPARTMENT OF COMMERCE (Rev. 03/01) U.S. Patent and Trademark Office 101925959 OMB No. 0651-0327 (exp. 5/31/2002) To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof. 1. Name of conveying party(ies): 2. Name and address of receiving party(ies) Glen E. Roeters Name: DPAC Technologies Corp. NOV 1 9 2004 Internal Address: Additional name(s) of conveying party(ies) attached 💭 3. Nature of conveyance: Merger Assignment Street Address: \_7321 Lincoln Way Security Agreement ☐ Change of Name Other\_\_\_ City: Garden Grove State: CA Zip: 92841 Execution Date: 12/12/01 4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: 12/12/01 A. Patent Application No.(s) B. Patent No.(s) 10016939 Additional numbers attached? 🔲 Yes 🔀 No 5. Name and address of party to whom correspondence 6. Total number of applications and patents involved: 1 concerning document should be mailed: 7. Total fee (37 CFR 3.41).....\$ 40.00\_ Name: Mark B. Garred STETINA BRUNDA GARRED & BRUCKER **K** Enclosed Internal Address:\_\_\_\_\_ 12/19/2 01 HLE333 00000040 10016939 Authorized to be charged to deposit account 04 FC:5 1 40.00 GP 8. Deposit account number: Street Address: 75 Enterprise, Ste. 250 (Attach duplicate copy of this page if paying by deposit account) City: Aliso ViejoState: CA Zip: 92656 DO NOT USE THIS SPACE 9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. 01 Mark B. Garred Name of Person Signing Date

Total number of pages including cover sheet, attachments, and documents:

PTO/SB/15 (6-66)
Approved for use through 9/30/98. OMB 0651-0027
Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
a collection of information unless it displays a valid OMB control number.

ASSIGNMENT OF APPLICATION	Docket Number (Optional): DENSE-052A
Whereas, I, Glen E. Roeters of Huntington Beach, C	alifornia , hereafter
referred to as applicant, have invented certain new and useful improve FLEX CIRCUIT	ements in <u>CSP CHIP STACK WITH</u>
for which an application for a United States Patent was filed on  Application Number/	
for which an application for a United States Patent was executed of	on, and
Whereas, <u>DPAC Technologies Corp.</u> of <u>Garden Grove, California</u>	ia, herein referred to as
"assignee" whose post office address is 7321 Lincoln Way, Garden G	irove, CA 92841 is desirous of
acquiring the entire right, title and interest in the same;	
Now, therefore, in consideration of the sum of one dollar (\$1.00), the r	receipt whereof is acknowledged, and
other good and valuable consideration. I, the applicant, by these prese	ents do sell, assign and transfer unto
said assignee the full and exclusive right to the said invention in the U	nited States and the entire right, title
and interest in and to any and all Patents which may be granted theref	for in the United States, I hereby
authorize and request the Commissioner of Patents and Trademarks	to issue said United States Patent to
said assignee, of the entire right, title, and interest in and to the same,	, for his sole use and behoof; and for
the use and behoof of his legal representatives, to the full end of the te	erm for which said Patent may be
granted, as fully and entirely as the same would have been held by me	e had this assignment and sale not
been made.	
Executed this 26 th day of Noucm	7her, 2001.
at DPAC Technologies, Garden	Grove CA
State of	- Roepuu
Seal (Notary Public	<del>;</del> )

PTO/SB/15 (8-96)

Approved for use through 9/30/98. OMB 0651-0027

Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

ASSIGNMENT OF APPLICATION	Docket Number (Optional): DENSE-052A
Whereas, I, Andrew C. Ross of Ramona, California	, hereafter
referred to as applicant, have invented certain new and useful improve STACKING PACKAGED INTEGRATED CIRCUIT CHIPS	ements in A FLEX TAB FOR USE IN
for which an application for a United States Patent was filed on  Application Number	•
for which an application for a United States Patent was executed of	on, and
Whereas, <u>DPAC Technologies Corp.</u> of <u>Garden Grove</u> , Californi	a. herein referred to as
"assignee" whose post office address is 7321 Lincoln Way, Garden G	rove, CA 92841 is desirous of
acquiring the entire right, title and interest in the same;	1
Now, therefore, in consideration of the sum of one dollar (\$1.00), the r	eceipt whereof is acknowledged, and
other good and valuable consideration, I, the applicant, by these prese	ents do sell, assign and transfer unto
said assignee the full and exclusive right to the said invention in the U	nited States and the entire right, title
and interest in and to any and all Patents which may be granted therei	or in the United States, I hereby
authorize and request the Commissioner of Patents and Trademarks	to issue said United States Patent to
said assignee, of the entire right, title, and interest in and to the same,	for his sole use and behoof; and for
the use and behoof of his legal representatives, to the full end of the to	erm for which said Patent may be
granted, as fully and entirely as the same would have been held by me	e had this assignment and sale not
been made.	
Executed this day of DECEL	BER 1 2001.
at DPMC TECH, GUTEDEN GIZO	VE J
	MU
State of	
Seal . (Notary Public	<del></del>

Express Mail:

Dear Sir:

Please date stamp and return this card, adding the serial number assigned where applicable.

(KMS/hms)

Date Mailed:

May 28, 2002 Docket No.:

DENSE-052A

Serial No.:

10/016,939

Filing Date:

December 14, 2001

Title:

CSP CHIP STACK WITH FLEX CIRCUIT

Papers transmitted herewith: Transmittal; IDS (in triplicate); form PTO-1449; and prior art 52 refs.

FROM:

LAW OFFICES

Stetina Brunda Garred & Brucker

PATENT, TRADEMARK, AND COPYRIGHT CAUSES

75 ENTERPRISE, SUITE 250 ALISO VIEJO, CALIFORNIA 92656

TO:

Box DD Assistant Commissioner for Patents Washington, D.C. 20231

FIRST CLASS MAIL

PTO/SB/17 (10-03)

Approved for use through 07/31/2006. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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FEE TO AND	CRAITTAI	C	omplete if Known	
FEE TRANS	DIVITIAL	Application Number	10/016,939	
for FY	2004	Filing Date	12/14/2001	
		First Named Inventor	Glen Roeters	
Effective 10/01/2003. Patent fees are s	<del></del>	Examiner Name	Cruz, Lourdes	
Applicant claims small entity status	. See 37 CFR 1.27	Art Unit	3868	
TOTAL AMOUNT OF PAYMENT	(\$) 40.00	Attorney Docket No.	DPAC-052A	

METHOD OF PAYMENT (check all that apply)				FEI	E CALCULATION (continued)	
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Deposit Andrews Kurdh 1 LD	1052	50	2052		Surcharge - late provisional filing fee or	
Name Andrews Kurth LLP				400	cover sheet	
The Director is authorized to: (check all that apply)	1053 1812	130	1053		Non-English specification  For filing a request for ex parte reexamination	
Charge fee(s) indicated below Credit any overpayments	1804	920*	1804		Requesting publication of SIR prior to	
Charge any additional fee(s) or any underpayment of fee(s)	1004	920	1604	920	Examiner action	
Charge fee(s) indicated below, except for the filing fee	1805	1,840*	1805	1,840*	Requesting publication of SIR after	
to the above-identified deposit account.	1251	110	2251	55	Examiner action  Extension for reply within first month	
FEE CALCULATION	1251	420	2252	210	Extension for reply within second month	
1. BASIC FILING FEE	1253	950	2253		Extension for reply within third month	
Large Entity Small Entity Fee Fee Fee Fee Description Fee Paid	1254		2254	740	Extension for reply within fourth month	
Code (\$) Code (\$)	1255		2255		Extension for reply within fifth month	
1001 770 2001 385 Utility filing fee		330	2401			
1002 340 2002 170 Design filing fee	1401 1402	330	2401		Notice of Appeal Filing a brief in support of an appeal	
1003 530 2003 265 Plant filing fee	1402	290	2402		Request for oral hearing	
1004 770 2004 385 Reissue filing fee	1403		1451		Petition to institute a public use proceeding	
1005 160 2005 80 Provisional filing fee	1452	110	2452	•	Petition to revive - unavoidable	
SUBTOTAL (1) (\$)			2453			
2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE	1453 1501	· 1	2501		Petition to revive - unintentional Utility issue fee (or reissue)	
Fee from Extra Claims below Fee Paid	1501	480	2502		Design issue fee	
Total Claims X =	1503	640	2503		Plant issue fee	
Independent - 3** = X =	1460	130	1460		Petitions to the Commissioner	
Multiple Dependent	1807	50	1807	7 50	Processing fee under 37 CFR 1.17(q)	
Large Entity   Small Entity	1806	180	1806		Submission of Information Disclosure Stmt	
Fee Fee Fee Fee <u>Fee Description</u> Code (\$) Code (\$)	8021	40	8021		Recording each patent assignment per	40.00
1202 18 2202 9 Claims in excess of 20	1809	770	2809	385	property (times number of properties) Filing a submission after final rejection	<b></b>
1201 86 2201 43 Independent claims in excess of 3	1000		2000	. 505	(37 CFR 1.129(a))	
1203 290 2203 145 Multiple dependent claim, if not paid	1810	770	2810	385	For each additional invention to be examined (37 CFR 1.129(b))	
1204 86 2204 43 ** Reissue independent claims over original patent	1801	770	2801	385	Request for Continued Examination (RCE)	
1205 18 2205 9 ** Reissue claims in excess of 20 and over original patent	1802	900	1802	900	,	
SUBTOTAL (2) (\$)	Other	lee (sp	ecify) _		6	
**or number previously paid, if greater; For Reissues, see above	*Redu	ced by	Basic F	Filing F	ee Paid SUBTOTAL (3) (\$) 40.00	

SUBMITTED BY				(Complete	(if applicable))
Name (Print/Type)	J. Scott Denko	Registration No. (Attorney/Agent)	37,606	Telephone	512-320-9200
Signature	Hoth onker			Date	07/14/2004

WARNING! Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



Form PTO-1619A Expires 06/30/99 OMB 0651-0027

U.S. Department of Commerce Patent and Trademark Office

RECORDATION F PATEN	ORM COVER SHEET TS ONLY
TO: THE HONORABLE COMMISSIONER OF PATENT document(s) or copy(ies).	S AND TRADEMARKS: Please record the attached original
SUBMISSION TYPE  New  Resubmission (non-recordations) Document ID #  Correction of PTO Error Reel # Frame #  Corrective Document Reel # Frame #	CONVEYANCE TYPE  Assignment Change of Name Security Agreement Merger Other:
CONVEYING PARTY(IES)  Name (line 1): DPAC Technologies Corp.  Name (line 2): (formerly known as Dense-Pac  Name (line 3): Microsystems, Inc.)  Name (line 4): Name (line 5): Name (line 6): Name (line 7): Execution Date: June 9, 2004  Mark if additional names of conveying parties attached.	Name: Staktek Group L.P. Address: 8900 Shoal Creek Blvd., Suite 125 City: Austin State: TX Zip: 78757   If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)
PAGES Enter the total number of pages of the attached conve	
	Mark if additional numbers attached.  The control of the same property)  The control of the same property attached to the same property attached to the same property.  The control of the same property attached to the same property attached to the same property.
10/016,939	· · · · · · · · · · · · · · · · · · ·
If this document is being filed together with a <u>new</u> patent application executing inventor:	ation, enter the date the application was signed by the first named
CORRESPONDENT NAME AND ADDRESS	
Name: J. Scott Denko Internal address: Andrews & Kurth LLP III Congress Avenue, Suite 1700	
Street address: Same	
City:         Austin           State:         Texas         Zip:         78701	<del></del>

PATENT COOPERATION TR	EATY (PCT)		
Enter PCT application number only if a U.S. application number has not been assigned.	PCT	PCTPCT	PCT PCT PCT
NUMBER OF PROPERTIES  Enter the total number of properties	s involved: One (1)		
FEE AMOUNT	For Amount for Properties	Listed (37 CFR 3.41):	\$40.00
Method of Payment: □  区	Enclosed (included in the check compeposit Account (Enter for payment by deposit account)  Debit Account No.:  Authorized to charge addition No. 50-0897.	nt or if additional fees car	n be charged to the account.) rerpayment to Deposit Account
	pelief, the foregoing information is true cosit account are authorized, as indicat		ched copy is a true copy of the

06/08/04

## EXHIBIT A ASSIGNMENT OF DPAC ASSETS

WHEREAS, DPAC Technologies Corp. (formerly known as Dense-Pac Microsystems, Inc.) ("DPAC") owns certain intellectual properties consisting of inventions, patents, and patent applications (enumerated on attached and incorporated Exhibit 1) (the "DPAC Assets");

WHEREAS, Staktek Group L.P., a Texas limited partnership, desires to acquire and DPAC desires to assign to Staktek Group L.P., all of DPAC's rights in the DPAC Assets;

NOW, THEREFORE, DPAC, for itself and its predecessors in interest for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, does hereby ASSIGN to Staktek Group L.P., all right, title and interest in the DPAC Assets, this assignment including, but not being limited to:

- 1. The ASSIGNED INVENTIONS enumerated on Exhibit 1 whether created by DPAC, its predecessors, its legal representatives or its assigns in the United States or any other country or place anywhere in the world;
  - 2. The ASSIGNED PATENTS enumerated on Exhibit 1;
  - The ASSIGNED PATENT APPLICATIONS enumerated on Exhibit 1;
- 4. All rights of action on account of past, present, and future unauthorized use or infringement of said DPAC Assets including, but not limited to all rights to damages so accrued;
- 5. The right, where allowed by law, to file in the name of Staktek Group L.P. applications for patent and like protection for any one or more of the DPAC Assets in any country or countries foreign to the United States;
- 6. All international and domestic rights or priorities associated with any one of the DPAC Assets; and

This Assignment shall be binding upon and shall inure to the benefit of the successors, assigns, and legal representatives of the parties.

DPAC CYSE
STAKTEK
5124542599
POGE 29

06/08/04

### EXECUTED on the EFFECTIVE DATE indicated below:

Assignor: DPAC TECHNOLOGIES CORP.

Date: JUNE 9, 2004

STAKTEK ADMIN

THE STATE OF CALL P

COUNTY OF [Oppinge]

This instrument was acknowledged by DPAC Officer on this the 2 day of

(Seal)

,06/10/2004 14:37

My commission expires:  $\frac{9/25/04}{}$ 

ROBERTA Y. HUFF Commission # 1278407 Natary Public - California

Page 2 of 2 - Exhibit A

AUS:557564.4

DPAC STAKTEK 5124542500

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DENSE-016A	DENSE-015X	ASB-015A	
DENSE-016A (C Chip Package Having Chip Antached to and Wire Bonded within an Overlying Substrate	DENSE-015X Reissue: Modular Panel Stacking Process	NSB-015A Modular Panel Stacking Process	Second

Patent

Original

11/17/1997

08/971,499

02/09/1999

5,869,353

Modular Panel Stacking Process

Chip Stack and Method of Making Same

Closed.

Modular Panel Stacking Process

ISE-013PC Chip Stack and Method of Making Same

Patent

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DENSE-013A | Chip Stack and Method of Making | Same

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Original

4/13/1995 | 08/421,801 | 3/18/1997

5,612,570

Chip Stack and Method of Making Same

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None

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Issued. 3 1/2 year maintenance fee due 12/09/2006

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Required Action Assigned None

Require

Action

Date

06/08/04

Mechanically Registered and Anachable Chip Stack

DENSE-012G Mechanically Registered and Anachable Chip Stack

Patent

Divisional

7/24/2002

10/202,185

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	2004	Tille/Mark - Invention		Porming the Same	Forming the Same	Stackable Chip Package with Flex Carrier	Stackable Chip Package with Flex Carrier	CSP Stacking Technology Using Kigld/Flex Construction	UNIX 012A Mechanically Besigned and
		Type		Patent	Patent	Patent	Palent	Palent	Patent
		Patent Trademark	Туре	Original	Divisional	Original	Continuation	Original	Ociginal
EXI		Filing Date		4/23/1999	9/19/2000	1/13/2000	4/10/2001	3/24/2000	6/15/2000
EXHIBIT 1 - DPAC		Serial Number		09/298,664	09/664,938	1/13/2000 09/482,294	09/838,773	09/535,641	09/594,989
`1-D		Jane Date		1/24/2001	3/26/2002	7/21/2001	10/29/2002	8/20/2002	
		Patent/ Trademark	Registration Number	6,222,737	6,360,433	6,262,895	6,473,308	6,437,433 B1	Mechanically Reguler
Assets		Description		Universal Package and Method of Forming the Same	Universal Package and Method of Forming the Same	Suckable Chip Package with Flex Carrier	Stackable Chip Package with Flex	8/20/2007 6,437,433 B1 CSF Sucking Feelmology Using Rigid/Fee Construction	Mechanically Regulered and
		Status		Issued, 3 1/2 year maintenance fees due 10/24/04.	Assued 3 1/2 year maintenance fees due 09/26/05.	Issued. 3 U2 year maintenance fees due 01/17/05.	Issued. 3 1/2 year maintenance fees due 04/29/2006.	Loued. 3 1/2 year maintenance fee due 02/20/2006.	Closed.

Page 1 of 8 - Exhibit 1

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Original

07/851,755

IC Chip Package Having Chip Amehed to and Wire Bonded within an Overlying Substrate

Closed.

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None

Awaiting Reply re: Non-Recordation of Document

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Lisued. 7 1/2 year maintenance fee due 08/09/2007.

A/N

None

Other

R?issue

8/3/2000

09/633,297

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Title/Mark - Invention

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Patent Trademark Type

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Number

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Owner

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None

Registration Trademark

Number

IC Chip Puckage and Method of Making the Same

Closed

EXHIBIT 1 -

DPAC

Assets

pualed: January 28, 2004

DENSE-016PC IC Chip Package and Method of Making the Same

Patent

PCT

3/10/1993

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DENSE-016EP IC Chip Package and Method of Making the Same

Paten

European

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ALP 10-BSNA

IC Chip Package and Method of

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Japan

5-516611

Making the Same

Stackable Flex Circuit IC Package and Method of Muking Same

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Korea

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DENSE-017JP

Stackable Flox Circuit IC Package and Method of Making Same

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Japan

10/29/2001

2000-616064

DENSE-017HK

Stackable Flex Circuit IC Package and Method of Making Same

Patent

Hong Kong

9/25/2002

1045759

DENSE-017EP

Suckable Flax Circuit IC Package and Method of Making Same

Patent

European

10/26/2001

932131.6

DENSE-017A

Stackable Flex Circuit IC Package and Method of Making Same

Patent

Original

5/5/1999

an Overlying Substrate

O9/305,534 | 11/27/2001 | 6,323,060 B1 | Stackable Flex Circuit IC Package and Issued. 3 1/2 year maintenance fee

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Stackable Flex Circuit IC Package and Method of Making the Same

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IC Chip Package baving Chip
Anached to and Wire Bonded within

Issued. 11 1/2 year maintenance fec due 11/17/2005.

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None

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None

DENSE-016G

IC Chip Package Having Chip Attached to and Wire Bonded within

Patent

Divisional

7/29/1992

07/920,763

5/17/1994

5,313,096

Making the Same

IC Chip Package and Method of

Closed.

Making the Same

IC Chip Package and Method of

Closed.

an Overlying Substrate

SE-017KS

ASE-017PC

Patent

Continuation-in-

5/19/2000

09/574,321 | 2/26/2002 | 6,351,029 B1 |Flax Wrap Carrier and Method

Suckable Flex Circuit IC Package and Method of Making Same

Patent

LCI.

5/5/2000

PCT/US00/1 2393

Stackable Flex Circuit IC Package and Closed

Stackable Flex Circuit IC Package and \*\* Closed.

Method of Making the Same

Stackable Flex Circuit IC Package and Method of Making the Same

\*\* Closed

DPAC

5/5/2007

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5/5/2005

None

Method of Making Same

Stackable Flex Circuit (C Package and | \* \* Closed.

Method of Making Same

and Method of Making Same

Patent

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3/29/2001

PCT/US01/1

Stackable Flex Circuit Chip Package and Method of Making Same

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Issued. 3 1/2 year maintenance fecs due 08/26/2005.

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None

Page 2 of 8 - Exhibit 1

Stackable Flex Circuit Chip Package and Method of Making Same Stackable Flex Circuit Chip Package

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						-	VEIO-ASMBQ	DENSE-0170	DENSE-017C	DENSE-0178G		- SNSE .017B1	DENSE-017BT	Care	Updated: Jan	
Bonding Pads on Staggered Edges of Chips	l e	Nodule and Method of Making Same			<del> </del>	Same Chip Stack and Method of Making	Making Same Chip Stack and Method of Making	Stackable Flex Circuit and Method of	Stackable Flex Circuit Chip Package	Method of Making Same	- wa wish carrier and Method	and Method of Making Same	DENSE-017871 Smekable Flex Circuit Chip Package	Title/Mark - Invention	Updated: January 28, 2004	
Peleat	Z diagr	103/67	Patent	7 200	8		Palaci	Parent	Patent	Patent	Patent	800	Type	Item		
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						1/30/2001			2/4/2003	7/30/2002				Luue Date	}	- <u>-</u>
						18 188'081'9	_	1_	1	6426240 BI			2 H	Patent		1
Chip Stack Having interconnected Bonding Pads on Staggared Edges of Chips	Module and Mathod of Making Same Unfilled - Closed	Chip Stack and Method of Making Same	Stackable Flex Circuit and Method of Making Same	and Method of Making Same	Method of Making Same	Stackable Flex Circuit Package and	Plex Wrap Currier and Method	Stackable Flex Circuit Package and Method of Making Same		Description	199619	Accete				
Closed.	Unfiled - Closed.	Closed.	Closed	• Closed.	Cloued.	leaved. 3 1/2 year maintenance fees due 07/30/2004.	Issued. 3 1/2 year maintenance fees due 01/30/2006.	due 08/04/2006.	due 01/30/2006.	Issued. 3 1/2 year maintenance fees	Closed. pursuant to client instructions.	Closed.	Sitte			
N/A	Y.N	Z/A	DPAC	F10	XIX.	ξ >	N/A	×		Z A	N/A	PTO	Require d			
None	None	None	5/4/2004	None	None	None	None	None		Zope	None	None	Regulred Action			06/08/04

Page 3 of 8 - Exhibit 1

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Part   Pa		2003 6,566,746 Panel Stacking of BGA Devices	6,366,746
Continuation-in- 12/14/2001 10/017 553	+-	22522	(2000)
Patent Continuation-in-		Panel Stacking of BGA Devices	Panel Stacking of BGA Devices Closed.
Patent Original 6/21/2000 09/598,373 6/11	6/11/2002 6	/2002 6,404,043 Panel Stacking of BGA Devices	6,404,043
Patent PCT 7/9/2002 PCT/US02/2		Frame/Notit-Ctrip Stacking of Differing Package Types	Frame/Nulti-Chip Stacking of ** Closed. Differing Package Types
Patent Divisional 10/3/2002 10/263,859		Frame/Multi-Chip Stacking of Differing Package Types	Frame/Multi-Chip Stacking of ** Closed. Differing Package Types
Patent Original 7/24/2001 09/912,010 9	9/30/2003 6	730/2003 6,627,984 Frame/Muld-Chip Stacking of Differing Package Types	6,627,984
Patent Original 7/15/2000 09/594,363 3	1/22/2001 6,:	3/22/2001 6,236,565 B1 Active Cooling System for Chip Su	1/22/2001 6,236,565 B1 Active Cooling System for Chip Stack Issued. 3 1/2 year maintenance fees due 11/22/2004.
Patent Original 07/552,578		Externally Configurable Chip Carn	Externally Configurable Chip Carrier Closed.
78(egit Divisional 08/097,449		Chip Stack and Method of Making Sante	Chip Stack and Method of Making Closed.
Craffinal Craffi		Chip Stack and Method of Making Same	Chip Stack and Method of Making Closed. Same
		Packago Stages	Package Stages
Patent Original 08/083.068		Marion Models United Marions	Modelle United Manager
Patent   Organal   08/119,518			
$\vdash$	2	Number	Number
riling Serial	Lyne Date		Patent/ Trademark
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			DENSE-035A	NSE-034A	- NSE-QUJA	DENSE-032A			DENSE-029A	11870-acvae		DENSE-028PC		NO POSTO	ENSE-028G		NSEOSERIO		Cer	dated: Jan
	Anisotropic Epoxy Interconnection		Coupling Test Specking	Internal Detectors for Capacitive	Helerogeneous Sahanced L-P Stack	BOA Device with Flex Flap	Memory	Spaces	Flux/Underfill Incomprating Ball	Form Three-Dimensional Modules	Form Three-Dimensional Modules		Porm Three Dimensional Models	Form Turce-Dimensional Modules		Form Three-Dimensional Aradica		TACTURE OF THE PARTY OF THE PAR	Title Mark - Inune	Updated: January 28, 2004
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	Original	Cagaal			Original	Original	Original	Cngna		Taiwan	, to		Continuation	0.00	Divisional	Divisional	Туре	Patent Trademark		
	4/5/2001		2002/61/1				1/9/2001	6/23/2000		5/4/2001	3/29/2001		11/8/2002	1007/078	10003/8	12/11/2002	-	Fulng		EX
	09/826,621		10/120,/00	:			09/757,155	09/602,036		90110694	PCT/US01/1		10/290,994	116,776160		10/316,566		Serial Number		EXHIBIT 1 - DPAC
-	10/29/2002													4/8/2003				Isane Date		`1 - D
	6,472,735 3 A	S	0.5											6,544,815		130 mm	Registration	Patent/ Trademark		
	3-D Memory Stacking Using Anisotropic Epoxy Interconnects	Socketed Stacking	Internal Detectors for Capacitive Coupling Test	Helerogeneous Enhanced LP Stack	DOX DEVICE WILD FIRE FLAP		Single Density Board with One Side	Flux/Vederfill lacorporating Ball Spaces	Form Three-Dimensional Modules	Panel Stacking of BGA Devices to	Panel Stacking of BOA Devices to Form Three-Dimensional Modules	Form 3-D Modules	Panel Stacking of BCA Devices	Panel Stacking of BGA Devices to Form 3-D Modules		Panel Stacking of RGA Design		Description		Assets
	Issued. 3 1/2 year maintenance fees due 04/29/2006.	** Closed	Closed.	•• Closed.	Closed.		Closed	Closed.	Cisto.	** Closed	Closed.	Closed.		Issued. 3 1/2 year maintenance fees due 10/08/2006.	Clased.			Status		
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Page 5 of 8 - Exhibit !

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None	9	** Closed.	Flex Tab Stacking			10/024,389	12/17/2001	Original	Pacent	Packaged Integrated Circuit Chips	
None	MO	** Closed.	3-D Stacking Using Thermal Ring			09/994,002	11/6/2001	Cagas	1 060		
Nope	PTO	** Closed.	Fost in King interconnect Using 3.D Stacking						d	Thermal Ring Used in 3-D Stacking	DENSE-049A
		one 12/03/2006				10/117 245	4/5/2002	Divisional	Patent	Post in a Ring Interconnect Used for	3NSE-0470
None	X/X	lsqued. 3 1/2 year maintenance fees	Post in Ring Interconnect Using 3-D Stacking	6,573,460	6/3/2003	09/957,190	9/20/2001	Original	Patont	3-D Stacking	
None	OTA	** Closed.	Retaining Ring Interconect Using 3-D ** Closed. Stacking			10/117,836	4/8/2002	Divisional	racent	3-D Stacking	_1
None	N/A	Issued. 3 1/2 year maintenance fees due 12/03/2006	Remining Ring Interconcet Using 3-D Issued. 3 1/2 year maintenance fees Stacking	6,573,461	6/3/2003	09/957,373	1002,007,16	Ongman		3-D Stacking Relaining Ring Interconnect that G	DENSE-046G
None	X	Utility Application Filed - See DENSE-045N	VO Interface Structure				1007/01			Remining Ring Interconnect I feed for	DENSE-046A
None	2					_	6/16/2017	Provisional	Patent	DENSE-OASN VO Interface Structure	DENSE-045N
	5	** Closed.	VO Interface Structure		1	10/160,857	1/4/1900	Original	Palent	DO manace Structure	
None	N/A	Utility Application Filed - Sec DENSE-044N	Slice Interconnect Structure			60/298,432	1002/61/0	IBDOIEIAGIA			DENSELMEN
none	PTO	Pending; Awaiting Receipt of Response to Restriction Requirement	Slice Interconnect Structure		9		0/3/2002		P	Slice Literconnect Structure	DENSE-044N
ASAP	DPAC	Closed.	Buned Device Stack						Paten	Slice Interconnect Structure	DENSE-044A
			The They mairconner		-			Original	Palrot		DENSE-043A
Assigned 9/18/2003	DPAC	Closed.	3-D Memory Stacking Using Anisotropic Epoxy Interconnects		ت	10/092,073	3/6/2002	Divisional	- Falent		
Required Action				Trademark Registration Number		Number	250	<del>                                     </del>	+	Three-Dimensional Memory Station	DENSB-0370
		Status	Description	te Patent	Lique Date	Serial	Filling	$\dashv$	I ice	Title/Mark - Invention	Case
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	DENSE-067S	DENSE-067B	NSE-067A	NHNSE-066A		DENSE-065A	DENSE-06		DENSH-061A	DENSE 060A	AKM-36-MAA	DENGE A	DENSB-055A	DENSE-053A	-	DENSE-052A			Opdated:	
	T.S.O.P. STACK PATENT SHAPON	THIN SCALE OUTLINE PACKAGE	THIN SCALE OUTLINE PACKAGE		LASER/SPOT WELDING		DENSE-062A Near Die Stack				YA Ireach Transposer		55A CS-STACK			52A CSP Chip Stack with Flex Circuit		* incinas k - invention	Janu	
19318.7	┥——		Patent	Patcot	Patent	1 85000	D	Patent		Palent	Patcat	i dicht		Patent		Palent		Item Type		
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																		Issue Date	7	7 1 5
	<b>60.1</b>															Number	Registration	_	TAC	EXHIBIT 1 - DDAC A coate
T.S.O.P STACK PATENT SEARCH Patent Search Opinion Letter to client	THIN SCALB OUTLINE PACKAGE Awaining Receipt of Response to STACK	THIN SCALE OUTLINE PACKAGE Response to OA due 6/24/04 STACK	ER .	INTERCONNECT	Ó	Near Die Stack	** ** C ******************************		Processed Chip Scale Package		Trench Transposer	CS-STACK	Innerconnect Line rouse Circuit with 2-axis	of Hotel Load	C-S Slack with Double Sided Flox and ** Closed.			Description	Assets	A
Patent Search Opinion Letter to client	Awaining Receipt of Response to Restriction Requirement	Response to OA due 6/24/04	** Closed.	067A)	Closed (Combined with DENSE-	Cloyed.	Closed.		Closed	Closed.		Closed.	Closed.		** Closed.			Stahu		
N/A	DPAC	PTO	770		XX	DPAC	DPAC		DPAC	77		Z/A	DPAC		PTO	2	Require	1		
None	Zone	6/24/04	None		None	None	None		None	Zone		None	None		None		Required	5		06/08/04

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DENSE-071N METHOD TO ACCESS SCALABLE
AKRAYS OF MEMORY VIA
HYPER TRANSPORT BUSES
DENSE-072A TSOP STACK ENHANCEMENTS DENSE-070A STAIR-STEP SIGNAL ROUTING DENSE-068A PENSE-069A TRANSPOSER CONVERTER FOR MONOLITHIC TO STACKABLE Ipdated: January 28, 2004 CE. T.S.O.P. POLYIMIDE FILM STRIP STACK Tide/Mark - Invention Patent Palent Patent Patent Patent Item Type Patent Trademark Type Provisional Original Original Original Original 4/21/2003 Filling Date **EXHIBIT 1 - DPAC Assets** 10/420,485 Serfal Number Issue Date Trademark Registration Number Patent METHOD TO ACCESS SCALABLE
AKRAYS OF MEMORY VIA
HYPEK TRANSPORT BUSES
TSOP STACK ENHANCEMENTS STAIR-STEP SIGNAL ROUTING TRANSPOSER CONVERTER FOR MONOLITHIC TO STACKABLE T.S.O.P. POLYTYMDE FILM STRIP STACK Description \*\* Closed. Closed. Closed. Action \*\* Closed. Awaiting Receipt of First Office Status Action Date
Require Required
Action
Owner Assigned
DPAC None DPAC DPAC 70 X None None None None

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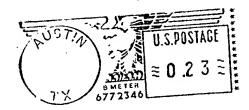
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Cular	Pransmittal Letter  Application PCT Utility Conversion Prov Div Cont CPA Reissue Spec pages; Claims pages Drawings pages; Abstract pages Declaration DPOA  Form 1449, IDS Assignment w/ Recordation Cover Sheet Cert. Of Mailing, First Class Authorization to Charge Deposit Account 50-0897  Cent. Of Express Mail No. EV 434216435	Applicant:
	Check Nofor \$  Response to Office Action	Docket No. DPAC - 052 A  Resp. Atty:  Date Mailed: 7/14/04  39 Date Due:



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